

**Report on Individuals Admitted to Hospital Emergency  
Departments and Diagnosed with a Mental Illness, Developmental  
Disability or Substance Abuse Disorder**

**July 1 - September 30, 2009**

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## Executive Summary

Research indicates that there has been a nationwide increase in admissions to hospital emergency departments by individuals with mental illnesses and substance abuse disorders. Treatment services provided by emergency departments are usually more expensive than comparable services offered by other providers in the community. In response to a growing need for consumers to be more appropriately tracked and served in the behavioral health services system, the North Carolina General Assembly passed General Statute 112C-147.1.1 Section 10.49(r). This law requires the Department of Health and Human Services to submit quarterly reports on individuals who were diagnosed with a mental illness, developmental disability, or substance abuse disorder and admitted to emergency departments in community hospitals.

The data for these reports are collected with the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT). These data included primary and co-occurring ICD-9<sup>\*</sup> diagnostic codes, recorded at the time of admission using the NHAMCS: 2005 Emergency Department Data Summary classification system. More information is available on this in Appendices C & D. Aggregated data were sent to the Division of Mental Health, Developmental Disabilities and Substance Abuse Services, under a data sharing agreement with the Division of Public Health. Reports on these data are distributed to key stakeholders across the state, as well as published each quarter on the Division's public web site.

The data for this report is based on 1,106,809 individuals who were admitted to emergency departments from July 1 through September 30, 2009. These included 7,885 diagnosed with a developmental disability, 31,328 diagnosed with a substance abuse disorder, and 101,719 diagnosed with a mental illness. Their statewide admission rates (per 10,000 persons in the population) ranged from 29.0 for those with developmental disabilities, to 124.0 for those with substance abuse disorders, to 399.0 for those with mental illnesses. In terms of their dispositions, 30.0% were referred to other units in the hospital, 58.7 % were discharged from the hospital, and other dispositions were reported for 11.3%. There were not great differences in the dispositions for the diagnostic groups.

The data in this report indicates that individuals with a MH/DD/SA diagnosis accounted for 12.7 % (140,932) of admissions to emergency departments in community hospitals. Some research has reported higher rates in other locales. Reviewing the research literature in other comparable states in the future may help to shed light on North Carolina's admission rates.

<sup>\*</sup>The **International Statistical Classification of Diseases and Related Health Problems** (most commonly known by the abbreviation **ICD**) provides codes to classify [diseases](#) and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease.

## Admissions

Figure 1 presents data on 1,106,809 individuals who were admitted to emergency departments in North Carolina community hospitals from July 1-September 30, 2009. Their medical records indicated there were 140,932 with diagnostic codes which included 7,885 (0.7%) for developmental disabilities, 31,328 (2.8%) for substance abuse disorders, and 101,719 (87.3%) for mental illnesses. All together, these three diagnostic groups accounted for 12.7% of the total admissions.

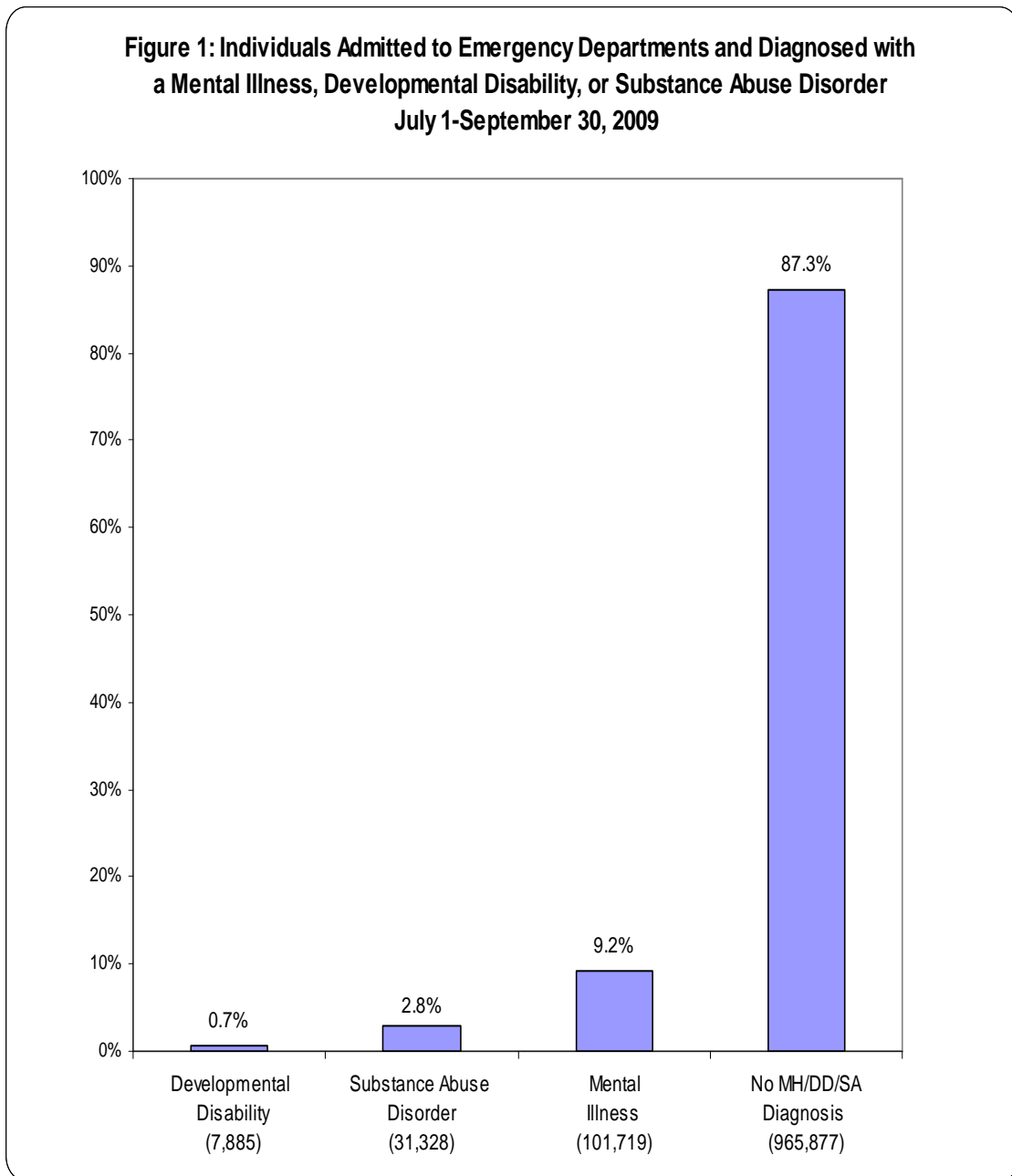
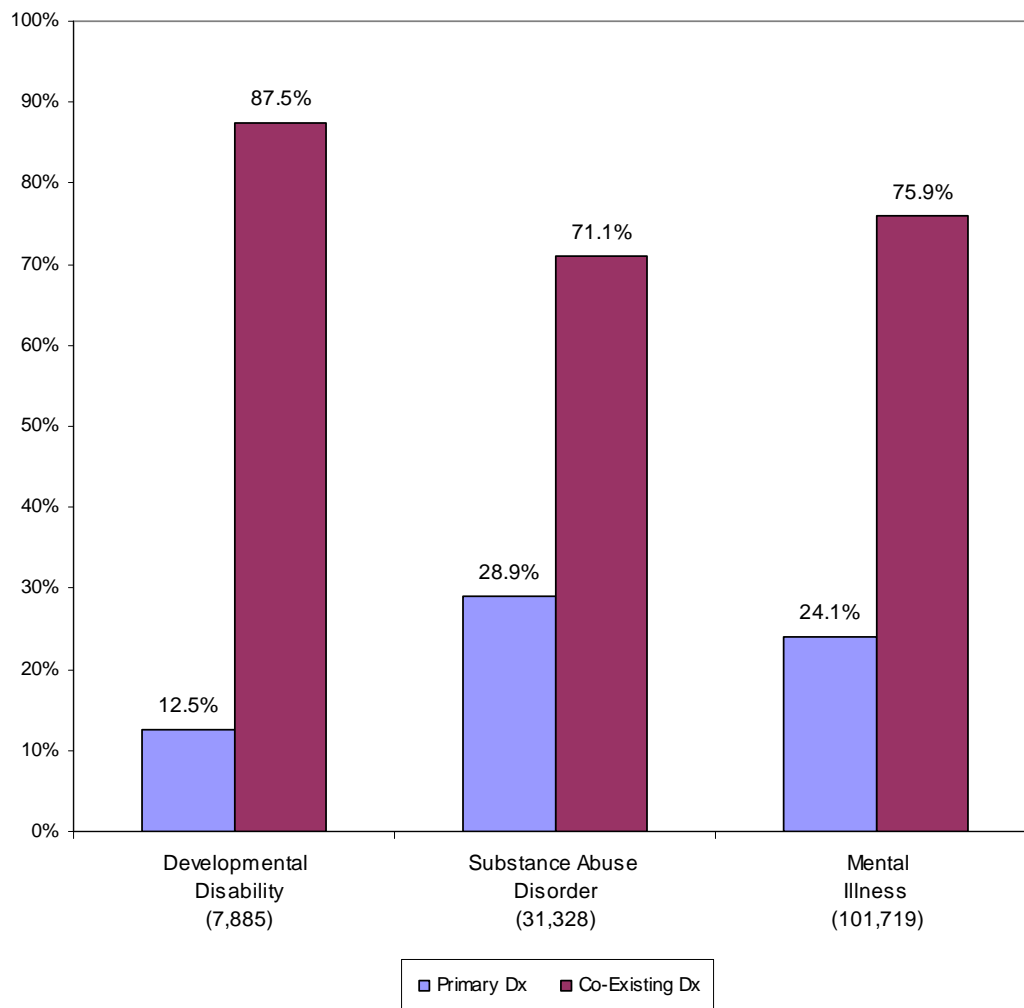


Figure 2 displays data on the 140,932 individuals who were admitted to emergency departments and diagnosed with a primary or co-occurring mental illness, developmental disability, or substance abuse disorder. This shows that individuals with a primary diagnosis for one of these conditions represented only a small proportion of the total number of individuals who had either a primary or co-occurring diagnosis for that condition. For the purpose of this report, a primary diagnosis is considered to be the main reason for the visit and the immediate focus of treatment. A co-occurring diagnosis is considered to be the secondary reason for the visit and focus of treatment. When only the primary diagnosis is considered, those admissions included 986 (12.5%) with developmental disabilities, 9,058 (28.9%) with substance abuse disorders, and 24,496 (24.1%) with mental illnesses. Altogether those individuals represented only 3.1% (34,540) of the admissions to emergency departments during the reporting period.

**Figure 2. Individuals Who Were and Diagnosed With a Primary or Co-Occurring Mental Illness, Developmental Disability, or Substance Abuse Disorder and Admitted to Community Hospital Emergency Departments July 1-September 30, 2009**



Tables 1 through 3 present data on admission rates to emergency departments for the three diagnostic groups, by Local Management Entity (LME). The rates are per 10,000 population and are listed from the highest to lowest rates. Table 1 shows that the LMEs with the highest rate of admissions for individuals with mental illnesses were Pathways (240.9), Western Highlands (181.7) and Guilford (153.9): The LMEs with the lowest rates were Beacon Center (60.3), Smoky Mountain (59.2), and Johnston (52.6).

<b>Table 1. Individuals Diagnosed with Mental Illnesses: Emergency Department Admission Rates by LME July 1-September 30, 2009</b>		
<b>LME</b>	<b>Count</b>	<b>Rate</b>
Pathways	9,052	240.9
Western Highlands	9,123	181.7
Guilford	2,502	153.9
Onslow-Carteret	3,568	151.8
Southeastern Reg.	3,758	147.9
Crossroads	3,568	133.7
MH Partners.	4,234	129.9
CenterPoint	4,997	115.7
Alamance-Caswell	3,007	115.5
Eastpointe	3,315	113.5
Southeastern Ctr.	3,920	111.7
<b>Statewide</b>	<b>101,607</b>	<b>110.0</b>
Cumberland	3,392	107.9
Piedmont	7,609	106.0
Sandhills Center	5,372	100.1
Five County	2,163	93.0
O-P-C	2,076	91.2
East Carolina	3,638	91.2
Durham	2,349	90.5
Wake	7,344	84.7
Albemarle	1,412	76.4
Mecklenburg	6,171	69.1
Beacon Center	1,477	60.3
Smoky Mountain	5,846	59.2
Johnston	1,714	52.6

Note. LME and statewide counts for LMEs may differ due to incompleteness of county level information.

Table 2 displays data on emergency department admission rates for individuals diagnosed with developmental disabilities, by Local Management Entity (LME). The rates are per 10,000 population. The LMEs with the highest rate of admissions for persons with developmental disabilities were Pathways (16.5), Onslow-Carteret (13.2) and Western Highlands (12.5): The LMEs with the lowest rates were the Beacon Center (5.1), Johnston (4.9), and Smoky Mountain (3.7)

<b>Table 2. Individuals Diagnosed with Developmental Disabilities: Emergency Department Admission Rates by LME July 1-September 30, 2009</b>		
<b>LME</b>	<b>Count</b>	<b>Rate</b>
Pathways	619	16.5
Onslow-Carteret	310	13.2
Western Highlands	627	12.5
Eastpointe	323	11.1
Cumberland	339	10.8
O-P-C	231	10.2
Crossroads	250	9.4
Wake	783	9.0
Piedmont	636	8.9
Southeastern Reg.	222	8.7
Southeastern Ctr.	305	8.7
<b>Statewide</b>	<b>7,873</b>	<b>8.5</b>
Alamance-Caswell	220	8.5
CenterPoint	362	8.4
Sandhills Center	421	7.8
MH Partners.	240	7.4
East Carolina	285	7.1
Durham	184	7.1
Five County	142	6.1
Albemarle	112	6.1
Mecklenburg	514	5.8
Guilford	91	5.6
Beacon Center	126	5.1
Johnston	161	4.9
Smoky Mountain	370	3.7

Note. LME and statewide counts for LMEs may differ due to incompleteness of county level information.

Table 3 displays data on emergency department admission rates for individuals diagnosed with substance abuse disorders, by Local Management Entity (LME). The rates are per 10,000 population. The LMEs with the highest rate of admissions for persons with substance abuse disorders were Johnston (67.2), Southeastern Center (66.0), and Wake (59.9). The LMEs with the lowest rates were Smoky Mountain (18.8) Beacon Center (17.1), and Mecklenburg (14.3)

<b>Table 3. Individuals Diagnosed with Substance Abuse Disorders: Emergency Department Admission Rates by LME July 1-September 30, 2009</b>		
<b>LME</b>	<b>Count</b>	<b>Rate</b>
Johnston	466	67.2
Southeastern Ctr.	1,717	66.0
Wake	1,921	59.9
Piedmont	2,023	57.5
Southeastern Reg.	1,523	48.9
Durham	912	47.9
O-P-C	832	40.3
Alamance-Caswell	1,038	39.9
Albemarle	316	39.9
Five County	668	37.9
Crossroads	715	36.7
Pathways	2,159	36.6
East Carolina	966	35.2
<b>Statewide</b>	<b>31,067</b>	<b>34.8</b>
CenterPoint	1,585	34.1
Guilford	1,092	28.7
Sandhills Center	1,921	28.2
Onslow-Carteret	948	27.1
Cumberland	1,507	26.8
Eastpointe	1,107	24.2
Western Highlands	1,746	22.2
MH Partners.	1,112	21.0
Smoky Mountain	1,856	18.8
Beacon Center	515	17.1
Mecklenburg	2,422	14.3

Note. LME and statewide counts for LMEs may differ due to incompleteness of county level information.



## Dispositions

Table 4 shows a summary of the disposition of individuals diagnosed with a mental illness, developmental disability or substance abuse disorder, and admitted to emergency departments.

**Table 4. Disposition of Individuals Admitted to  
Emergency Departments by Diagnostic Group**

Diagnostic Group	Referred to Another Unit in Hospital <sup>1</sup>		Discharged from Hospital <sup>2</sup>		All Other Dispositions <sup>3</sup>		Total
	No.	%	No.	%	No.	%	
<b>Developmental Disabilities</b>	1,939	25.3	5,041	65.7	692	9.0	7,672
<b>Substance Abuse Disorders</b>	28,655	29.0	58,302	59.0	11,791	11.9	98,748
<b>Mental Illnesses</b>	10,414	34.4	16,854	55.7	2,977	9.8	30,245
<b>Total</b>	41,008	30.0	80,197	58.7	15,460	11.3	136,665

Notes:

1. Includes individuals referred to IC and Psych units, as well as to hospital floor, isolation bed, CCU, operating room, and diagnostic unit.
2. Includes individuals who left hospital against medical advice (AMA) or without medical advice, as well as those who were formally discharged from hospital.
3. Includes individuals with all other dispositions, such as those who died, were transferred to another location, as well as unknown dispositions.

## Summary

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The data for this report is based on 1,106,809 individuals who were admitted to emergency departments from July 1 through September 30, 2009. These included 7,885 diagnosed with a developmental disability, 31,328 diagnosed with a substance abuse disorder, and 101,719 diagnosed with a mental illness. The statewide admission rates (per 10,000 persons in the population) ranged from 29.0 for those with developmental disabilities, to 124.0 for those with substance abuse disorders, to 399.0 for those with mental illnesses. In terms of their dispositions, 30.0% were referred to other units in the hospital, 58.7 % were discharged from the hospital, and other dispositions were reported for 11.3%. The data in this report indicates that individuals with a MH/DD/SAS diagnosis accounted for 12.7% (140,932) of admissions to emergency departments in community hospitals.

## Appendix A-1

### MH/DD/SA Admission Rates to Emergency Departments by North Carolina County

<b>Highest Quartile of Admission Rates to Emergency Departments for Individuals Diagnosed with a Mental Illness, Developmental Disability or Substance Abuse Disorder, by North Carolina County</b>				
<b>July 1 - September 30, 2009</b>				
<b>North Carolina County</b>			<b>Individuals Diagnosed</b>	
<b>Rank</b>	<b>Name</b>	<b>Population</b>	<b>Number</b>	<b>Rate1</b>
<b>100</b>	McDowell	23,718	944	<b>398.0</b>
<b>99</b>	Cleveland	97,121	3,387	<b>348.7</b>
<b>98</b>	Carteret	63,807	2,038	<b>319.4</b>
<b>97</b>	Buncombe	229,417	6,190	<b>269.8</b>
<b>96</b>	Gaston	204,188	5,482	<b>268.5</b>
<b>95</b>	Craven	97,339	2,370	<b>243.5</b>
<b>94</b>	Robeson	130,402	3,013	<b>231.1</b>
<b>93</b>	Surry	73,549	1,656	<b>225.2</b>
<b>92</b>	Rutherford	62,892	1,406	<b>223.6</b>
<b>91</b>	Haywood	57,328	1,261	<b>220.0</b>
<b>90</b>	Martin	20,644	453	<b>219.4</b>
<b>89</b>	Anson	25,157	548	<b>217.8</b>
<b>88</b>	Lincoln	74,405	1,619	<b>217.6</b>
<b>87</b>	Burke	88,487	1,835	<b>207.4</b>
<b>86</b>	Catawba	155,452	3,114	<b>200.3</b>
<b>85</b>	Person	37,931	746	<b>196.7</b>
<b>84</b>	Wayne	115,644	2,209	<b>191.0</b>
<b>83</b>	Caldwell	79,747	1,485	<b>186.2</b>
<b>82</b>	Alexander	37,038	659	<b>177.9</b>
<b>81</b>	Cabarrus	170,509	2,980	<b>174.8</b>
<b>80</b>	Yancey	18,748	322	<b>171.8</b>
<b>79</b>	Alamance	145,139	2,479	<b>170.8</b>
<b>78</b>	Columbus	54,286	914	<b>168.4</b>
<b>77</b>	Sampson	65,222	1,086	<b>166.5</b>
<b>76</b>	New Hanover	194,558	3,176	<b>163.2</b>

## Appendix A-2

### MH/DD/SA Admission Rates to Emergency Departments by North Carolina County

<b>Second Highest Quartile of Admission Rates to Emergency Departments for Individuals Diagnosed with a Mental Illness, Developmental Disability or Substance Abuse Disorder, by North Carolina County</b>				
<b>July 1 - September 30, 2009</b>				
<b>North Carolina County</b>			<b>Individuals Diagnosed</b>	
<b>Rank</b>	<b>Name</b>	<b>Population</b>	<b>Number</b>	<b>Rate1</b>
75	Richmond	46,851	757	161.6
74	Pamlico	12,952	205	158.3
73	Brunswick	104,114	1,629	156.5
72	Scotland	36,928	573	155.2
71	Mitchell	15,937	246	154.4
70	Halifax	55,008	846	153.8
69	Beaufort	46,262	680	147.0
68	Forsyth	344,311	5,045	146.5
67	Pasquotank	41,798	610	145.9
66	Jones	10,370	151	145.6
65	Wilson	78,654	1,142	145.2
64	Cumberland	314,471	4,483	142.6
63	Davidson	157,650	2,151	136.4
62	Graham	8,179	111	135.7
61	Stokes	46,407	623	134.2
60	Iredell	155,192	2,072	133.5
59	Randolph	140,516	1,851	131.7
58	Harnett	108,799	1,428	131.3
57	Swain	14,098	185	131.2
56	Onslow	171,289	2,202	128.6
55	Bladen	32,517	418	128.5
54	Henderson	104,293	1,320	126.6
53	Johnston	162,609	2,053	126.3
52	Rockingham	91,640	1,153	125.8
51	Franklin	57,678	689	119.5

## Appendix A-3

### MH/DD/SA Admission Rates to Emergency Departments by North Carolina County

<b>Third Highest Quartile of Admission Rates to Emergency Departments for Individuals Diagnosed with a Mental Illness, Developmental Disability or Substance Abuse Disorder, by North Carolina County</b>				
<b>July 1 - September 30, 2009</b>				
<b>North Carolina County</b>			<b>Individuals Diagnosed</b>	
<b>Rank</b>	<b>Name</b>	<b>Population</b>	<b>Number</b>	<b>Rate<sup>1</sup></b>
<b>50</b>	Hyde	5,390	64	<b>118.7</b>
<b>49</b>	Durham	259,426	3,064	<b>118.1</b>
<b>48</b>	Rowan	137,611	1,607	<b>116.8</b>
<b>47</b>	Alleghany	11,175	130	<b>116.3</b>
<b>46</b>	Transylvania	31,117	361	<b>116.0</b>
<b>45</b>	Madison	34,238	388	<b>113.3</b>
<b>44</b>	Orange	129,076	1,460	<b>113.1</b>
<b>43</b>	Duplin	53,745	605	<b>112.6</b>
<b>42</b>	Moore	85,492	957	<b>111.9</b>
<b>41</b>	Lee	57,496	637	<b>110.8</b>
<b>40</b>	Avery	18,359	201	<b>109.5</b>
<b>39</b>	Cherokee	27,513	301	<b>109.4</b>
<b>38</b>	Granville	56,428	608	<b>107.7</b>
<b>37</b>	Northampton	21,204	225	<b>106.1</b>
<b>36</b>	Yadkin	38,145	403	<b>105.6</b>
<b>35</b>	Wake	867,228	8,990	<b>103.7</b>
<b>34</b>	Stanly	59,347	614	<b>103.5</b>
<b>33</b>	Jackson	37,289	369	<b>99.0</b>
<b>32</b>	Union	192,452	1,810	<b>94.0</b>
<b>31</b>	Hoke	44,538	416	<b>93.4</b>
<b>30</b>	Mecklenburg	892,606	8,266	<b>92.6</b>
<b>29</b>	Davie	41,341	381	<b>92.2</b>
<b>28</b>	Montgomery	27,748	255	<b>91.9</b>
<b>27</b>	Watauga	45,129	412	<b>91.3</b>
<b>26</b>	Perquimans	13,046	119	<b>91.2</b>

## Appendix A-4

### MH/DD/SA Admission Rates to Emergency Departments by North Carolina County

<b>Lowest Quartile of Admission Rates to Emergency Departments for Individuals Diagnosed with a Mental Illness, Developmental Disability or Substance Abuse Disorder, by North Carolina County</b>				
<b>July 1 - September 30, 2009</b>				
<b>North Carolina County</b>			<b>Individuals Diagnosed</b>	
<b>Rank</b>	<b>Name</b>	<b>Population</b>	<b>Number</b>	<b>Rate1</b>
25	Ashe	26,313	237	90.1
24	Vance	43,629	378	86.6
23	Wilkes	67,375	580	86.1
22	Clay	10,570	88	83.3
21	Warren	19,885	165	83.0
20	Pender	52,144	412	79.0
19	Camden	9,845	76	77.2
18	Chatham	60,549	461	76.1
17	Macon	44,430	321	72.2
16	Guilford	468,850	3,317	70.7
15	Caswell	23,496	154	65.5
14	Currituck	24,368	152	62.4
13	Polk	19,041	109	57.2
12	Lenoir	57,484	319	55.5
11	Bertie	19,845	94	47.4
10	Edgecombe	51,272	242	47.2
9	Greene	21,217	99	46.7
8	Chowan	14,763	65	44.0
7	Nash	93,820	413	44.0
6	Pitt	155,162	600	38.7
5	Dare	34,492	99	28.7
4	Tyrrell	4,328	12	27.7
3	Gates	12,108	29	24.0
2	Hertford	23,748	44	18.5
1	Washington	13,165	24	18.2

## Appendix B.

### List of Hospitals Contributing Data to NC DETECT

As of March 5, 2009 there were 111 of 112 (99%) hospitals submitting production-level data on a daily basis to NC DETECT.

County	Town	Hospital
Alamance	Burlington	Alamance
Alexander	Taylorsville	Frye Alexander
Alleghany	Sparta	Alleghany
Anson	Wadesboro	Anson
Ashe	Jefferson	Ashe
Avery	Linville	Charles A. Cannon
Beaufort	Washington	Beaufort
Beaufort	Belhaven	Pungo
Bertie	Windsor	Bertie
Bladen	Elizabethtown	Bladen
Brunswick	Supply	Brunswick
Brunswick	Southport	Dosher
Buncombe	Asheville	Mission
Burke	Morganton	Grace
Burke	Valdese	Valdese
Cabarrus	Concord	Northeast
Caldwell	Lenoir	Caldwell
Carteret	Morehead City	Carteret
Catawba	Hickory	Catawba Valley
Catawba	Hickory	Frye
Chatham	Siler City	Chatham
Cherokee	Murphy	Murphy
Chowan	Edenton	Chowan
Cleveland	Shelby	Cleveland
Cleveland	Kings Mountain	Kings Mountain
Columbus	Whiteville	Columbus
Craven	New Bern	Craven
Cumberland	Fayetteville	Cape Fear Valley
Dare	Nags Head	Outer Banks
Davidson	Lexington	Lexington
Davidson	Thomasville	Thomasville
Davie	Mocksville	Davie
Duplin	Kenansville	Duplin
Durham	Durham	Duke
Durham	Durham	Durham Regional
Edgecombe	Tarboro	Heritage

<b>County</b>	<b>Town</b>	<b>Hospital</b>
Forsyth	Winston-Salem	Forsyth
Forsyth	Winston-Salem	NCBH
Franklin	Louisburg	Franklin
Gaston	Gastonia	Gaston
Granville	Oxford	Granville
Guilford	High Point	High Point
Guilford	Greensboro	Moses Cone
Guilford	Greensboro	Wesley Long
Halifax	Roanoke Rapids	Halifax
Halifax	Scotland Neck	Our Community
Harnett	Dunn	Betsy Johnson
Haywood	Clyde	Haywood
Henderson	Hendersonville	Margaret Pardee
Henderson	Fletcher	Park Ridge
Hertford	Ahoskie	Roanoke Chowan
Iredell	Statesville	Davis
Iredell	Statesville	Iredell
Iredell	Mooresville	Lake Norman
Jackson	Sylva	Harris
Johnston	Smithfield	Johnston
Lee	Sanford	Central Carolina
Lenoir	Kinston	Lenoir
Lincoln	Lincolnton	Lincoln
Macon	Franklin	Angel
Macon	Highlands	Highlands
Martin	Williamston	Martin
McDowell	Marion	McDowell
Mecklenburg	Charlotte	CMC
Mecklenburg	Charlotte	CMC Mercy
Mecklenburg	Charlotte	CMC Pineville
Mecklenburg	Charlotte	CMC University
Mecklenburg	Charlotte	Presbyterian
Mecklenburg	Huntersville	Presbyterian Huntersville
Mecklenburg	Matthews	Presbyterian Matthews
Mitchell	Spruce Pine	Blue Ridge Reg. (Spruce Pine)
Montgomery	Troy	FHS Montgomery
Moore	Pinehurst	FHS Moore
Nash	Rocky Mount	Nash
New Hanover	Wilmington	New Hanover
Onslow	Jacksonville	Onslow



<b>County</b>	<b>Town</b>	<b>Hospital</b>
Orange	Chapel Hill	UNC Hospitals
Pasquotank	Elizabeth City	Albemarle
Pender	Burgaw	Pender
Person	Roxboro	Person
Pitt	Greenville	Pitt
Polk	Columbus	St Luke
Randolph	Asheboro	Randolph
Richmond	Rockingham	FHS Richmond
Richmond	Hamlet	Sandhills
Robeson	Lumberton	Southeastern
Rockingham	Reidsville	Annie Penn
Rockingham	Eden	Morehead
Rowan	Salisbury	Rowan
Rutherford	Rutherfordton	Rutherford
Sampson	Clinton	Sampson
Scotland	Laurinburg	Scotland
Stanly	Albemarle	Stanly
Stokes	Danbury	Stokes Reynolds
Surry	Elkin	Hugh Chatham
Surry	Mt. Airy	Northern Surry
Swain	Bryson City	Swain
Transylvania	Brevard	Transylvania
Union	Monroe	Union
Vance	Henderson	Maria Parham
Wake	Raleigh	Duke Raleigh
Wake	Raleigh	Rex
Wake	Apex	Wake Med Apex
Wake	Cary	Wake Med Cary
Wake	Raleigh	Wake Med North
Wake	Raleigh	Wake Med Raleigh
Washington	Plymouth	Washington
Watauga	Blowing Rock	Blowing Rock
Watauga	Boone	Watauga
Wayne	Goldsboro	Wayne
Wilkes	North Wilkesboro	Wilkes
Wilson	Wilson	Wilson
Yadkin	Yadkinville	Hoots

## **Appendix C:**

### **Data Source**

#### **What is NC DETECT?**

The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is the Web-based early event detection and timely public health surveillance system in the North Carolina Public Health Information Network. NC DETECT uses the CDC's CUSUM algorithms from the Early Aberration Reporting System (EARS) to monitor several data sources for suspicious patterns. The reporting system also provides broader public health surveillance reports for emergency department visits related to hurricanes, injuries, asthma, vaccine-preventable diseases, occupational health and others.

#### **Who develops and manages NC DETECT?**

Staff at the UNC Department of Emergency Medicine (UNC DEM), under contract to the North Carolina Division of Public Health (NC DPH) develop and manage NC DETECT. UNC DEM collaborates with NC DPH on all aspects of NC DETECT development.

#### **How is NC DETECT related to NCHESS?**

Data from the North Carolina Hospital Emergency Surveillance System (NCHESS) are loaded into NC DETECT (which was formerly known as the North Carolina Bioterrorism and Emerging Infection Prevention System, NC BEIPS). The NC DETECT team at the UNC Department of Emergency Medicine monitors the quality of the NCHESS data and work with hospitals, their vendors and the North Carolina Hospital Association (NCHA) to ensure NC DETECT users have access to the most accurate data possible.

#### **How have North Carolinians benefited from NC DETECT?**

With NC DETECT, public health officials at the local, regional and state levels are able to monitor a variety of important public health issues in a secure and timely fashion, including influenza, post-hurricane health issues, injury and violence, and vaccine-preventable disease surveillance. For example, NC DETECT users have monitored illness and injury effects after hurricanes Isabel and Ophelia, analyzed ED use at select hospitals by Katrina evacuees, and uncovered unreported cases of tuberculosis. Before NC DETECT, similar surveillance was either simply not performed, relied on manual, redundant data entry, or had a considerable time lag. A summary of specific NC DETECT outcomes is also available. Since NC DETECT is designed to uncover suspicious patterns of illness in both human and animal populations, it is a key tool in the early detection of emerging infectious diseases, such as new strains of influenza.

#### **Who pays for NC DETECT?**

NC DETECT is funded from federal bioterrorism grants administered through the Centers for Disease Control and Prevention and disbursed by the North Carolina Department of Health and Human Services, Division of Public Health.

For more Information: [ncdetect@listserv.med.unc.edu](mailto:ncdetect@listserv.med.unc.edu), (919) 843-2361

## Appendix D.

### ICD-9 Codes

ICD-9 codes that are used to categorize each of the three disabilities are listed below. The International Statistical Classification of Diseases and Related Health Problems (most commonly known by the abbreviation ICD) provides codes to classify [diseases](#) and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease.

#### ICD code grouping:

##### Mental Health

290.00- 290.99	Dementia/Delusional psychosis
293.00-293.99	Organic delirium/delusions
294.00-294.99	Dementia/Organic brain syndrome
295.00-295.99	Schizophrenia
296.00-296.99	Manic depressive disorder
297.00-297.99	Paranoia
298.00-298.99	Unspecified psychosis
299.00-299.99	Childhood psychosis
300.00-300.99	Neurotic disorders
301.00-301.99	Personality disorder
302.00-302.99	Psychosexual disorders
306.00-306.99	Physiological malfunction from mental disorders
307.00-307.99	Sleeping order/eating disorder
308.00-308.99	Predominant emotional disturbance
309.00-309.99	Brief/prolonged depressive reaction
310.00-312.99	Conduct disorder
313.00-314.99	Emotional disturbance of childhood or adolescence
799.9	Other MH /unknown/unspecified
995.50-995.89	Child/adult abuse/neglect

#### ICD Code Grouping:

##### Substance Use and Abuse

292.00-292.99	Drug induced psychosis
304.00-304.99	Drug dependence
305.20-305.99	Drug abuse
291.00-291.99	Alcohol-related psychosis
303.00-303.99	Alcohol dependence
305.00-305.03	Alcohol abuse

<b>ICD Code Grouping:</b>	<b>Description of Category</b>
315.00-315.99	Developmental disabilities
V79.0-V79.9	Range of DD early childhood/DD- unspecified
314.01	Hyperkinesias with DD
740-759	Congenital anomalies
317.00	Mild mental retardation
318.00	Moderate mental retardation
318.10	Severe mental retardation
318.20	Profound mental retardation
319.00	Mental retardation, severity unspecified

The DMH/DD/SAS Mental Health, Developmental Disabilities and Substance Abuse Related Admissions in Community Emergency Departments, Quarterly Report is published four times a year.

All reports are available on the Division's website:

<http://www.ncdhhs.gov/mhddsas/statspublications/reports/>

Questions and feedback should be directed to:

NC DMH/DD/SAS Quality Management Team

[ContactDMHQuality@ncmail.net](mailto:ContactDMHQuality@ncmail.net)

Or

(919)-733-0696

